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*The monthly magazine of the*

**North East Victoria Amateur Radio Club**

<http://nevarc.org.au/>



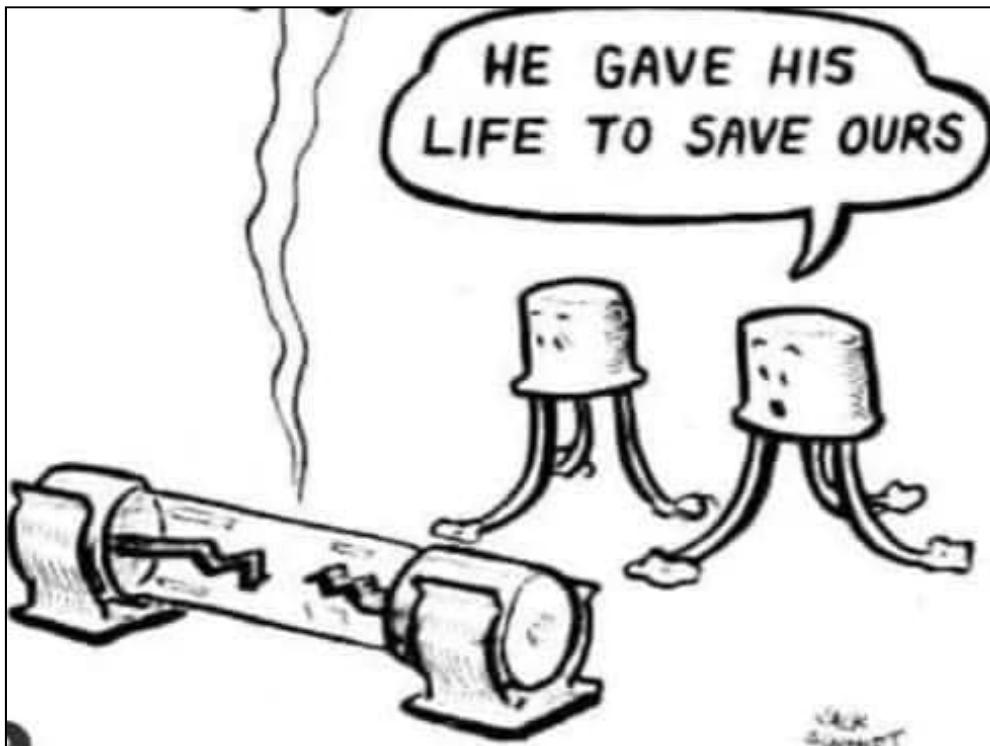
An Affiliated club of Wireless Institute of Australia

An Affiliated club of Radio Amateur Society of Australia Inc.



Volume No: 08 Issue 3 March 2021

**Next Meeting**  
**Sunday 14<sup>th</sup> March**  
**Belvior Guides Hall,**  
**6 Silva Drive West Wodonga**



*In real life it's the other way round!*

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# NEVARC CLUB NEWS

## NEXT MEETING

**12.00pm Sunday 14th March**

## FOUNDATION LICENCE EXAMS

Club holds first exams in over a year.

On Sunday the 14th there will be 2 foundation exams taking place at the clubrooms.

## C4FM / WIRES-X

In addition to this there will be some C4FM / Wires-X gear to show the members and maybe a demo of how well it all hangs together.

On the Wires-X front we have a Node operating in Albury on  
**431.700 RX 438.700 TX**

We also have a club “room” on Wires-X at **DTMF 69712** at present.

**NEVARC-VK2** is the room name for those with Wires-X radios already.

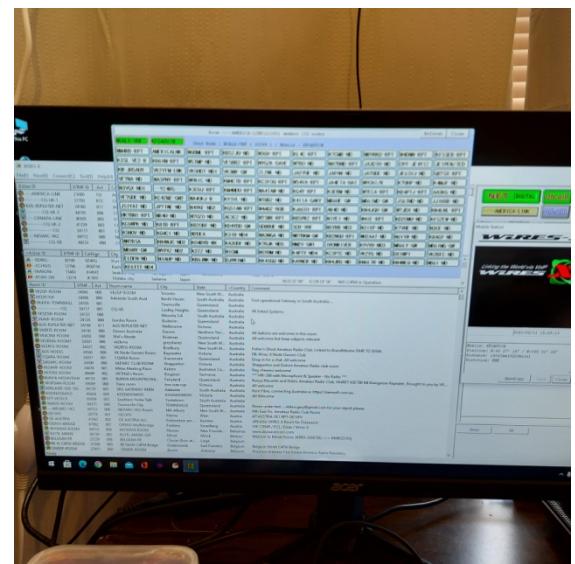
Wires-X Control software for NEVARC Node and Room ↓



Wires-X when open



Active shows callers callsign



Frank VK2BFC is up to his neck in all the C4FM / Wires-X stuff, read on....

## Yaesu Fusion

The Yaesu Fusion system is an interesting approach that has a lot of flexibility. As is the way of these things the flexibility initially shows up as complexity! Yaesu Fusion has its origins in the Motorola merger using some of the P25 and DMR technology. However, it is sufficiently modified such that it is not compatible.

Fusion radios are capable of Normal FM, and the Yaesu Digital C4FM. In basic operation you can use the repeater below in either mode. It is configured in what is known as Auto-Auto. If it receives FM it will go out FM, if it receives digital it will go out digital. Some repeaters are configured as Auto-FM (they will receive either but always output in FM)

There are 3 modes depending on the radio. FM, DN – standard digital, VW – Wide digital, (several radios are also capable of a special wide digital data, although you usually don't select it manually). On most units there is a mode which shows FM or DN with a bar over it. This means the radio is in auto mode and will receive either.

As long as your radio has a Callsign configured (usually the first step in setting up) then you are good to go. Change the mode from FM to DN and start using.

There is one main trick to most digital systems!!!

Key up-pause ----- 3 seconds-talk talk talk-pause ----- 3 seconds-Unkey

Most of these systems need the 200ms or so to establish the connections between repeaters, many of them also have separate voice and command pipes, this means that the unkey command can arrive at the remote repeater before the last of the voice.

There is a special button on most Yaesu Fusion radios "X" This is for the Wires-X system, similar to the D-Star gateway system.

Pressing the 'X' key whilst in a digital mode will start up the wires-x interface (if the node is online). This interface lets you connect to different rooms around the world which have other repeaters connected.

Our wires-x node sits in the VK3RWO "room" -----NEVARC, which allows other nodes to connect to us. However, if no one is using that feel free to connect to another room. Note that the system will disconnect and return to the RBV room after 1 hour.

C4FM stands for Continuous Four Level Frequency Modulation, which is a special type of 4FSK, which is used in conjunction with FDMA - Frequency Division Multiple Access. ... Even if a digital signal is being used, you can switch to FM communication if radio signals are received from an FM station.

**WIRES** (Wide-coverage Internet Repeater Enhancement System) is an Internet communication system which expands the range of amateur radio communication. ... **WIRES-X** automatically connects to nodes and rooms via the Internet. No more need to verify connection IDs or transmit cumbersome **DTMF** connection codes.

**YSF** and **FCS** are two different reflector systems that can be used with Yaesu's System Fusion. ... This allows hotspot software, such as Pi-star, to use the **WIRES-X** control capability in Yaesu radios to change the YSF reflector that the hotspot is connected to.

**WIRES-X** uses local nodes (stations connected to the Internet via PCs) as access points to relay communications of conventional amateur radio stations. ... The **WIRES-X** node can open and run a community space "room" where multiple nodes can connect at the same time.

**WIRES-X. WIRES** (Wide-coverage Internet Repeater Enhancement System) is an Internet communication system which expands the range of amateur radio communication. For **WIRES-X**, an amateur node station connecting to the Internet is used as the access point and connects the wireless communication to the Internet.

## VK3RWO Details

| FIELD            | SETTING     |
|------------------|-------------|
| <b>FREQUENCY</b> | 438.600     |
| <b>OFFSET</b>    | -7.0Mhz     |
| <b>WIRES-X</b>   |             |
| <b>NODE</b>      | VK3RWO-RPT  |
| <b>ROOM</b>      | -----NEVARC |



The VK3RWO repeater is a **Yaesu DR-2X Yaesu-Fusion C4FM repeater**. We have configured this to operate on 438.6 TX and 431.6 RX on FM & C4FM. Connecting with the repeater on C4FM allows you to directly connect with our NODE at VK2BFC's QTH called VK2BFC-ND, this connects you to the Wires-X network and rooms.



The link between the Repeater **VK3RWO-RPT** &  
The Node **VK2BFC-ND** uses a Yaesu **FTM-300D** and **HRI-200** Interface.

Personally, I use 2 different Yaesu hand holds.



**The Yaesu FT3D** The Yaesu FT3D is a bit tougher than the FT-70D but is also a bit harder to learn to fly. Memory storage using the limited keyboard is a book read and a half but worth it in the end. The radio has GPS and a camera in the Mic so digital pics can be sent through the repeater as well using this radio and C4FM. It also allows direct to person calling.



### And the Yaesu FT-70D

While the FT-70D is smaller in size to the FT3D it punches the same punch as far as output and features. Memory management is far easier on the DTMF keypad as is recalling or direct entry of room id numbers, A sprk/mic is available which can drive a set of headphones also. The battery lasts about 6 hrs on each radio before needing a charge whilst on receive. With regular transmit I would cut that figure in half.

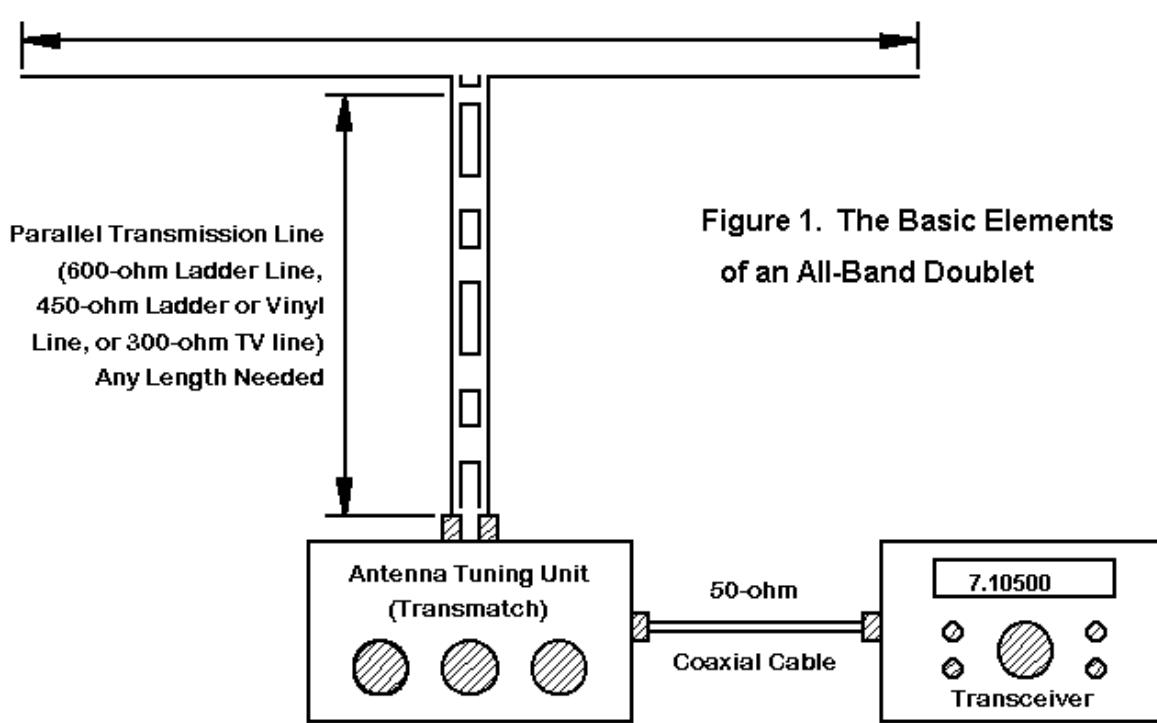
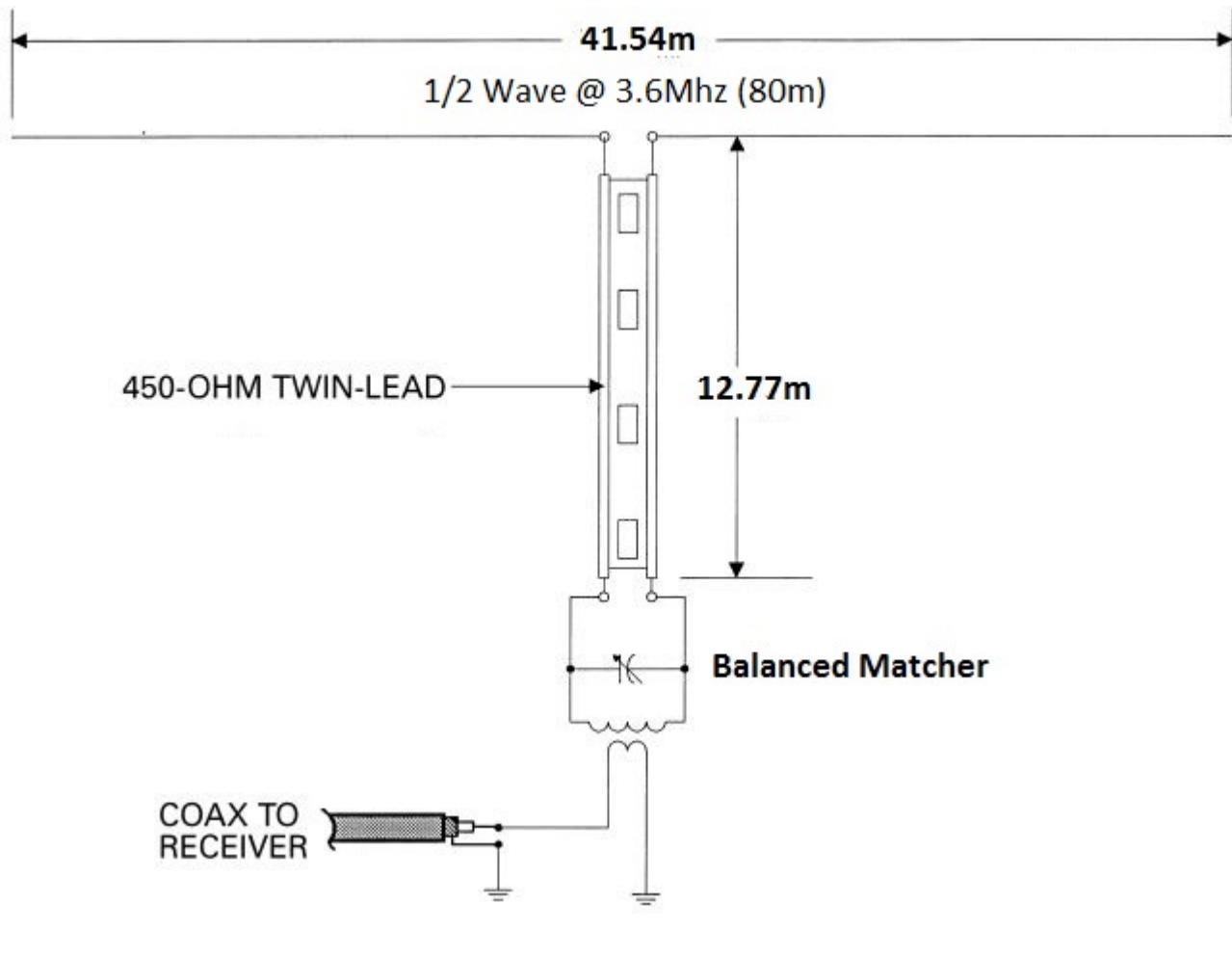
# Wires-X and Rooms



~ Frank VK2BFC

# 80 Metre Doublet Aerial

Here we have some details on building an 80 Metre Doublet on a suburban block.



The Basic Doublet Antenna System

As shown in Figure 1, the basic all-band doublet antenna system consists of 3 parts: the antenna proper, the feedline, and the antenna tuning unit (or transmatch).

1. The Antenna: The antenna proper consists of a length of copper or copperweld wire, with a center feedpoint. Three popular lengths for the antenna are these:

- a. 130-140' (best, if you have the room and want the strongest results on 80 meters).
- b. 90-110' (works second best on 80 meters, with good results on all other bands).
- c. 65-75' (good for 40 meters through 10 meters, but not for 80).

Notice that the precise length is not critical. Much more critical is getting the doublet as high as you possibly can. Although the antenna will work at low heights in the 20-25' range, it does much better (especially on 80 and 40) when it is higher than 35' up. You can use available trees for support, or you can even build your own support poles or trusses from designs in the ARRL Antenna Book.

#14 stranded wire will fill the bill. Insulated copper wire will also work well if it is sufficiently strong. The inner ends will require insulation stripping to make connections, but the far ends may be left insulated. The twisting of wires at these ends to make a loop for the support line will introduce no significant changes to the antenna's operation.

Home-made trusses and their guying are not simple matters. Neither is trying to get a line over a branch 40' or more up a tree. The many techniques for launching a line often depend on local talent, whether that talent is tree climbing, bow-and- arrow, fishing rod, or slingshot.

Of course, the ends of the wire need to be insulated from the support, so you will need end insulators and rope for the job. A good 1/4" sun (UV)-resistant synthetic fiber rope will hold up most antennas unless they are stressed too tightly.

Suppose that the antenna will not quite fit the space available. One standard technique of reducing the real estate needed is to set up the doublet in the inverted-Vee configuration. This version of the doublet tends to circularize the pattern, but reduce overall gain of the antenna at almost every frequency of use.

Consider bending the elements instead (if supports are available).

Drooping ends are the most common version of this arrangement. However, setting up the antenna as a "Z," with all parts of the antenna wire as high as possible, often provides better performance. Drooping ends, and even ends bent in the same direction, provides some radiation cancellation, especially on the lowest bands of use, while the zig-zag version--if not too radically Z-ed--tends only to bend the pattern's directions.

2. The Feedline: The second element is the feedline. For this antenna, we use a parallel transmission line because it has very low losses, no matter what the SWR (within reasonable limits). 300-Ohm TV ribbon line will work, but it is not the strongest. Most ham dealers can get 400-Ohm or 450-Ohm vinyl-coated transmission line with larger wires. Completely open ladder line, with only insulated spaces, also works well but is less common.

Unlike coaxial cable, which you may run close to any object, parallel transmission line should be as free and clear of objects as possible. If the line must be brought down parallel to an object, such as the wall of a house, use insulated spacers to keep the line several inches away from the object. Avoid bringing the line near metal gutters and down spouts, power lines, conduits, or other metallic objects. Close proximity to metal can disrupt the balance between the wires of the feedline, adversely affecting its performance.

Wherever the line must change directions, keep the angles shallow and, if at all possible, keep the line at right angles to the antenna wire.

Use special care when attaching the feedline to each side of the antenna wire center feedpoint insulator. Be sure that connections are mechanically secure, and then solder the feedline wires to the antenna wires. Test the connections for movable wire bends that may cause a break while swaying in the wind. Recently, some ladder-line "grabber" center fixtures have appeared on the market to secure the ladder line to the antenna wire and reduce the danger of breakage: they are well worth the investment.

One special problem deserves special attention: getting parallel feedline into the shack and over to the antenna tuner. There are almost as many ways to solve this problem as there are all-band doublet installations. The type of solution used depends largely on where the feedline enters the house.

If the feedline enters at a window, one can bring it through the window frame or through a board installed at the base of the window. Both have advantages and disadvantages. Bringing the line through the wooden window frame defaces the frame. Using a board on which the bottom section of the window closes requires special means to ensure insulation and security around the window. In each case, one can use a pair of bolts spaced about the same distance apart as the wires and make separate indoor and outdoor attachments. This feature is important, since it permits detachment of the feedline when electrical storms are imminent or when going on vacation.

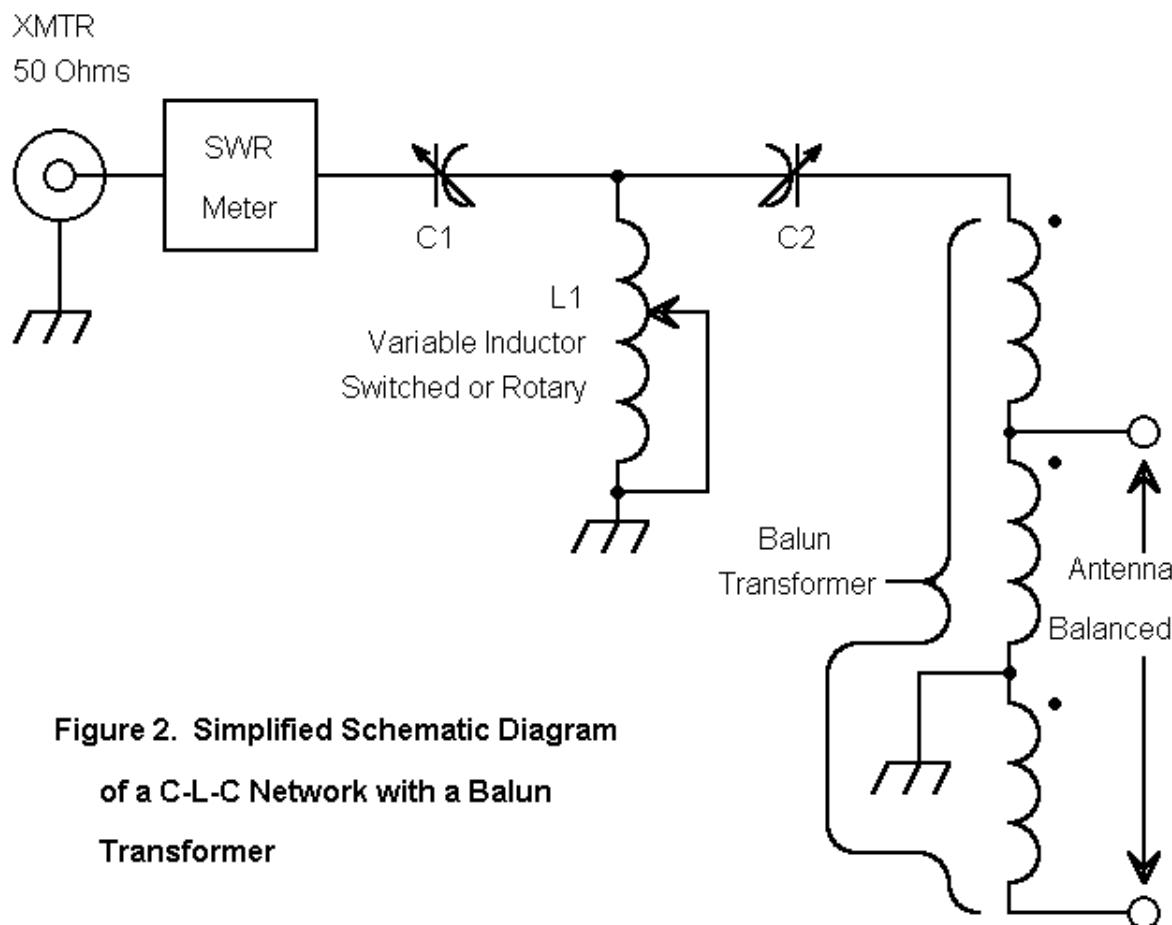
Feeding a parallel transmission line through a wall calls for even greater care. One simple system (among many) uses a short length of PVC run through the wall and weather sealed around the edges. Some hams center the transmission line in the tube and hold it in place with fiberglass insulation. Others use plastic spacers with a center cutout to hold the line in place and seal the tube. There are many variations on this theme, but the old idea of simply slamming a window frame down on the transmission line at the window should be discouraged, especially with metal window frames. In all cases, there should be a way of disconnecting the transmission line out of doors and grounding it.

Routing the feedline within the house or shack calls for equal care. Ideally, the tuner should be as close to the line exit point as possible. Feedline should not be simply drooped on the floor or haphazardly tacked to the walls and ceiling. Spacing from invisible metal in the wall cavities is as essential indoors as is spacing from outdoor metallic objects.

### 3. The Antenna Tuning Unit or Transmatch:

The "antenna tuner" is a network for transforming the impedance that is present at the shack end of the transmission line to another value, normally 50 ohms. An all- band doublet shows a different feedpoint impedance at each frequency of operation. The exact length of the antenna relative to the frequency will largely determine that impedance. The feedline will transform that impedance continuously along its length, repeating values every half wavelength of line. Since most transmission lines have a velocity factor, a half wavelength of line will be shorter than a true half- wavelength for the frequency of interest.

All of this together means that the exact impedance presented to the antenna tuner will vary from band to band and from one antenna installation to another.



**Figure 2. Simplified Schematic Diagram  
of a C-L-C Network with a Balun  
Transformer**

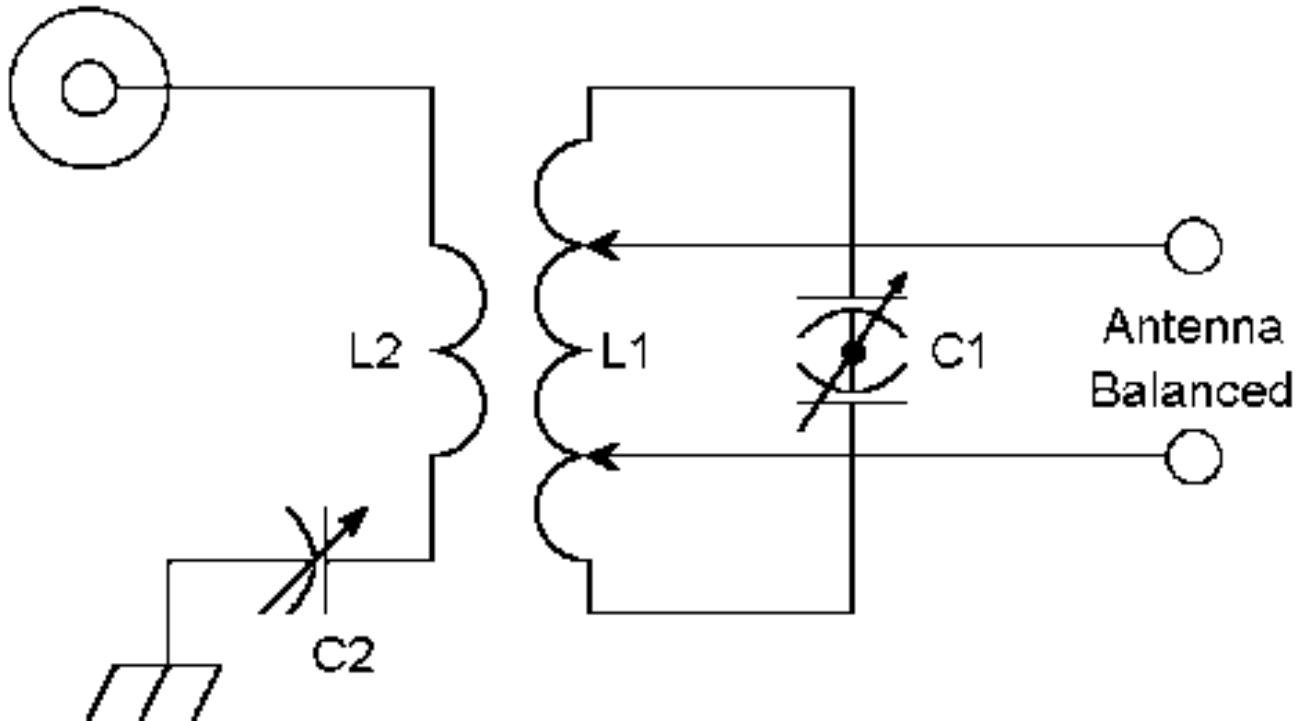
Most antenna tuners use unbalanced networks. The most popular network used in commercial tuners is the series C, parallel L Tee network, schematically shown in Figure 2. The popularity of this network stems largely from the fact that it is the most economical to produce and from the relative ease of tuning it to an adequate low-SWR match.

Unbalanced networks employ a 4:1 transformer or balun to allow for the use of balanced feedlines. This feature often means that the antenna tuner settings that produce a low SWR between the tuner and the transceiver may not give the highest efficiency of power transfer. However, for most general purpose communications, efficiency will be adequate.

Since antenna tuners do not wear out unless severely abused, used transmatches should be as good as new ones, and perhaps less expensive. Once more, helping a new ham scour a hamfest for the best used equipment available--showing him or her what to look for and what to look out for--may be a real service that has long-term benefits. New hams also need a little help in learning how to bargain down a price. If the all-band doublet is to be a long-term antenna for the new ham, and if home-brewing is an interest, then the best antenna tuner may not be the C-L-C network with a balun to handle balanced lines. Instead, there are circuits in the ARRL Antenna Book and elsewhere for link-coupled antenna tuners that have balanced outputs ready for the parallel feedline. Finding the right coil stock and capacitors, however, may be a fair-sized challenge these days.

**XMTR**

**50 Ohms**



**Figure 3. Simplified Schematic Diagram of a Link-Coupled Antenna Tuner**

#### Adjusting the All-Band Doublet

Using the all-band doublet requires just a little more work than using a resonant dipole. The first job is to find the correct antenna tuner settings for each band you plan to use. However, once you have established these settings, you can make a chart and return to the settings, with only a moment's tweaking to set up the antenna perfectly.

Since the most common tuner is the C-L-C Tee with a balun for balanced transmission lines, let's see what the set-up for it consists of. First, use a low power setting for initial tune-up. Second, for each band, find an empty place to do your tuning in order to minimize QRM. Third, read the tuner manual to see if there are any recommended initial settings for the controls.

The next step is to apply low power and find the settings of the controls that allow you to achieve a 1:1 SWR. Record the setting. Now increase power to the level at which you intend to operate. You may have to tweak the settings just a bit.

Repeat the process for each of the bands. If you have never used this kind of set-up before, you might practice moving from band to band so that you do not forget to check the settings and make final adjustments before going to full power.

For each band, also check how far up and down the band you can move the transmitter frequency without exceeding a 2:1 SWR. Make notes on whether the settings are broad or sharp for each band. Sharp tuning often indicates either of a high SWR or a high level of reactance at the tuner antenna terminals--or both.

On some bands, you may find more than one set of control settings that will give a 1:1 SWR. For C-L-C tuners, the rule of thumb is to use the setting with the higher output capacitance, which usually coincides with a lower value of inductance. These settings are normally higher in efficiency. However, you should listen to signals on the band with each set of control positions and use the ones that yield the stronger signals--if any difference can be detected.

At the other extreme, you may discover that on some bands, there are no settings that will produce a 1:1 SWR. This condition normally means that the impedance at the antenna terminals of the tuner has too much reactance, either capacitive or inductive, and the tuner cannot both compensate for it and also end up with a correct value to make the match perfect.

The easiest method of overcoming this problem is to change the feedline length by patching in a 6' to 10' section of line between the tuner terminals and the "regular" line. Since a transmission line is an impedance transformer along which the values of resistance and reactance are constantly changing (if the SWR is initially greater than 1:1), changing the length of the line changes the values of resistance and reactance presented to the tuner.

Sometimes, the new line length will work with all bands. In other cases, keeping the "patch-in" section handy is necessary for a few bands.

## **Antenna Maintenance**

Every piece of amateur radio equipment deserves regular preventive maintenance. The antenna system is no exception. In fact, the antenna system--including the antenna proper, the feedline, and the antenna tuner--require special attention just because they seem so immune to harm.

However, here is a list of things that can happen to your antenna system that can adversely affect performance:

### **1. Antenna:**

- Wire corrosion
- Wire breaks inside strong insulation
- Wear on support ropes or lines
- Wear or corrosion of solder joints at the feedpoint

### **2. Feedline:**

- Build-up of dirt
- Hidden breaks
- Changes in the nearby metals

### **3. Antenna Tuner:**

- Dust, dirt, tarnishing of the coil
- Dirt between capacitor plates
- Dirty switches

All of these items assume that we have taken generally good care of everything.

The cure for all these evils is a regular maintenance program to examine and clean everything before it causes trouble. In addition, items showing wear can be replaced while the situation is under control, not during a contest or field day.

Good maintenance begins at the time of building the antenna and feedline system. Raising the antenna should also mean that it can be lowered. Hence, the use of pulleys, eye-bolts, and other means of passing the rope or support line is essential to a good antenna installation. Passing the rope over a crotch of a tree is a good method for finding the rope immovable in a couple of years, as the tree grows right over it.

Be certain that all connections between the feedline and the antenna wire are mechanically solid and well soldered. Do not rely on solder for the mechanical connection. In some parts of the country, it may be useful to seal the solder connection, since chemical salts in the air may break down the solder joint.

Even if you use a ladder-line "grabber" device, be sure that there are no sharp edges against which the line may rub and break. In fact, the first maintenance should be about 4 months after initial construction as a check to ensure that all work was well done. Thereafter, a check at least once a year is wise.

Many hams wax antenna wires with one of the automotive waxes designed to go on metals. They also contain cleaners that remove dirt, grime, and some tarnish to the wire during reapplication.

Similar measures also apply to feedlines.

Some doublet users have noticed that the antenna tuner settings require a little change during rain showers. While the water on the line may not create significant losses, it nevertheless pays to clean the feedline during a regular maintenance session. Again, automotive polish applied to vinyl-coated feedlines not only helps shed water, but also cleans dirt build-ups from particulates and chemicals in the air.

One often neglected area of maintenance is the point where the line enters the house. Because the temperature may be vastly different indoors relative to outdoors, the line and its insulation can undergo stress and wear. If the passage is filled initially with fiberglass or a similar insulation to protect from drafts, the material can become packed with dirt and insects.

Periodically changing the insulation-- and even the line section in this area--can help maintain the antenna system at full efficiency.

The antenna tuner also needs a good periodic cleaning to remove dust and coatings that accumulate just from sitting in the living environment. A fine bottle-type brush (electric shaver type?) is good for catching dust between capacitor plates, as is some contact cleaner on a lintless rag. However, be sure the cleaner is non-toxic.

Coils require special care.

Many have tinned or silvered coatings, and tarnish can be a problem. It can even degrade the contact between the turns of a rotary coil and the wheel that contacts the turns. Try to clean the coil with non-abrasive materials to avoid removing the finish, since the copper underneath may tarnish even faster.

While doing a general cleaning, inspect all connections. A good- looking solder joint to a coax connector might reveal a weakness after a period of time. Switch contacts may need cleaning and even replacement. Tightening all chassis and case screws (unless the instruction book explicitly says not to in some instance) is usually good practice, especially those screws that form part of the ground common of the tuner.

The all-band doublet is so deceptively simple an antenna that it seems to beg for neglect--until it quits working or falls down. Yet, a regular schedule of maintenance once or twice a year can make the antenna operate reliably for many years.

*~Internet*

# A 52 YEAR DELAYED QSL

A few weeks ago an email arrived, which I first thought was spam, until I looked at the attachment. My fathers QSL card was clearly seen in the attached photos.

I thought I would share the email with you; I have left the wording as I received it.

I remembered my father being on the radio many nights in 1969, which was probably one of his most active years on air on HF.

-----

Hello Mich! My name is Mitchell Max Dullnig.

I am a retired emergency physician now living north of San Antonio, Texas on a family ranch.

I happen to study the para-normal, many aspects of it in a scientific fashion such as what IONS does, an institution founded by Edgar Mitchell, I think 3rd man to walk on the moon- Apollo 13 astronaut I think.

Anyway, my dad was the reason why I became a ham myself.

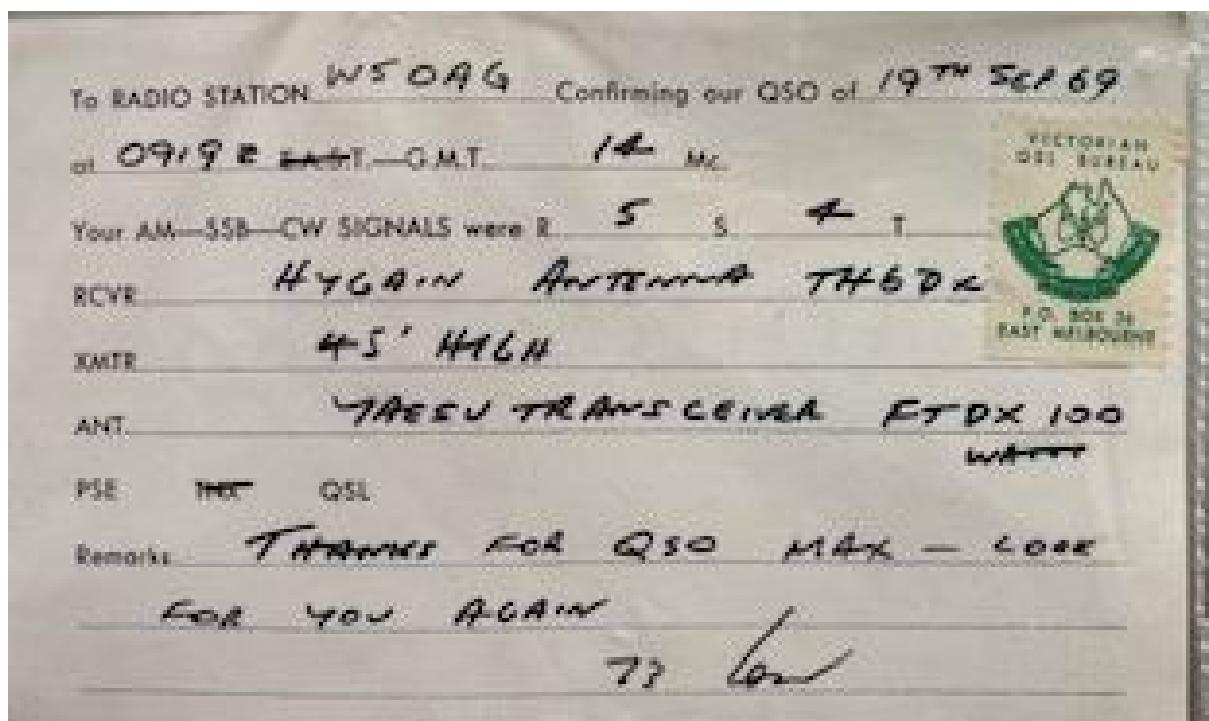
Many memories of him as he liked going out in the "shack" and I would sit on his knee while he made far away contacts with the tubes glowing on a winter day or night. I also obtained his call sign when he passed like you did. So we are linked in that way. At any rate, must be 10 or 15 years ago I was working in my ham radio office on the Ranch and a life-long worker from Mexico, laborer who is like a family member was cleaning up and he asked me what are those cards on your wall and pointed to like 2 QSL cards of mine which I stuck up there.

I stopped and explained to him in a very different culture that when one contacts another on the radio, a memorable call, then people send these cards for display.

He scratched his head and muttered under his breath--I did not catch the words.

So I then had to explain about ham radio, and the power of these communications. I told him how I remembered the contacts my dad made to far away places like Australia with Kangaroos. He understood. I had a tear in my eye when I explained the memories, and how I cherished them. He walked away but the next day or two (cannot remember now) in the mail came a QSL card from your dad back in 1969 with a stamp which was un-marked.

See 2 photos sent. Don't know where it came from.





I assumed your dad had passed and perhaps the local ham club looked up my call and database and sent it to me only because it matched W50AG--. My dad was Max, and I am Mitchell Max Dullnig. At anyway, when poor Simon returned a day or two later, I had your Dad's QSL card on my wall with a Kangaroo and a boomerang on it. I explained that the date was from 1969 and I did not know if it had been floating around in the mail all of this time or what had happened.

He thought I think, honestly that I was lying or else plumb crazy! Mich--I had only received 2 QSL cards in my life, and my dad had a collection of perhaps 50 or so, but they had never come in the mail especially since his death in 1987.

The traits of much emotion, love--and the linking or bonding of people by like minded concepts such as both the love for our dads--those are usually found in many of these cases of Synchronicity--they call them synchronous events. Carl Jung, father of Psychology coined that term. That QSL was synchronous at the time I was discussing my dad and referenced calls to Australia which was a big deal back in 69! I would have been 10 years old, and I perhaps even witnessed the QSO?

Reminds me of the movie "frequency".

I'm sure you will tell me the ham club sent it to me, but stamp not cancelled and no return address. Please opein with any info, stories, etc. that you have I am so curious what happened here.

Stay well with this Covid!

If I had a digital mode perhaps I could figure out how to call you on ham radio. I have HF also, but digital may be much easier if I can figure out how to change it to your group.

73's my friend. I hope your health is well! Mitch

~ Mitchell Max Dullnig

I have since replied to Max and sent him some select copies of NEVARC News of my radio setup.



Australian  
Communications  
and Media Authority

# Review of non-assigned amateur regulatory arrangements

The ACMA has reviewed the regulatory arrangements that authorise the operation of non-assigned amateur stations.

This work was part of a broader review that included non-assigned outpost licensing arrangements, as foreshadowed in the *Five-year spectrum outlook 2020–24*.

The objective of our review is to identify the best licensing mechanism that reduces regulatory burden and minimises costs for licensees, while also preserving the current operational utility for licensees.

We have identified a set of options. We could:

- keep the existing apparatus licensing arrangements and conditions
- simplify the existing licensing arrangements and conditions
- transition non-assigned stations to class licensing arrangements, while retaining apparatus licensing arrangements for assigned stations.

We are now consulting on these options and our preferred approach to authorise the operation of non-assigned amateur stations under a class licence.

We are also seeking preliminary comments on a proposal to establish an additional kind of accreditation to allow people to become accredited persons to issue frequency assignment certificates for assigned amateur repeater and beacon licences.

The consultation paper and draft class licence are available on [our website](#).

A separate consultation paper and draft instrument relating to outpost licensing is also available.

We invite comments on the issues discussed in the consultation papers and on the proposed instruments that would implement our preferred class licensing option.

Submissions close on **2 April 2021**.

## Making a submission

You can choose either to make a submission by using the ‘Upload a submission’ button on the consultation webpage, or by sending your submission to [SLPSConsultations@acma.gov.au](mailto:SLPSConsultations@acma.gov.au).

If you use either of these to make a submission, you will receive an automatic notification confirming its receipt. Due to the large number of submissions we receive, we do not acknowledge receipt of submissions individually. If you do not receive an automatic reply within 24 hours, please send an email to [spectrumlicensingpolicy@acma.gov.au](mailto:spectrumlicensingpolicy@acma.gov.au) to let us know, so we can deal with it immediately.

To ensure that all submissions are collected and considered efficiently, please do not send submissions to individual ACMA staff.

## Consultation questions

If you have an important question about this consultation, please send it directly to [spectrumlicensingpolicy@acma.gov.au](mailto:spectrumlicensingpolicy@acma.gov.au). Please note, we may use the *Amateur radio update* e-bulletin to answer frequently asked questions.

# WARC Hamfest 2021 Report

With COVID-19 interrupting everything it was a bit surreal to be at a hamfest again, let alone selling.

This is the first time I have been to a WARC Hamfest.

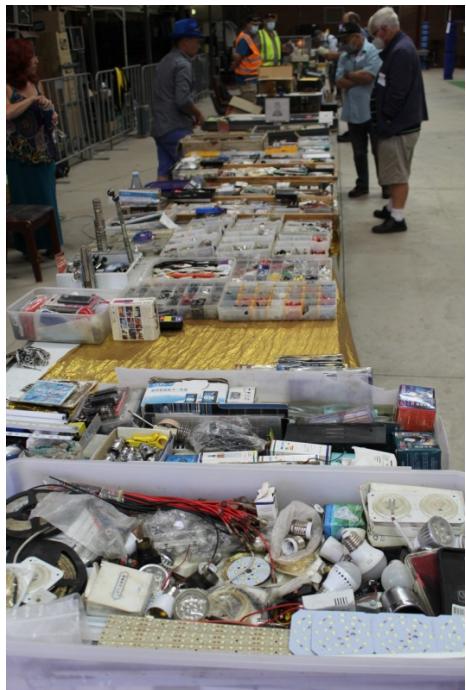
The organizers had COVID-19 rules in place, it was understandable.

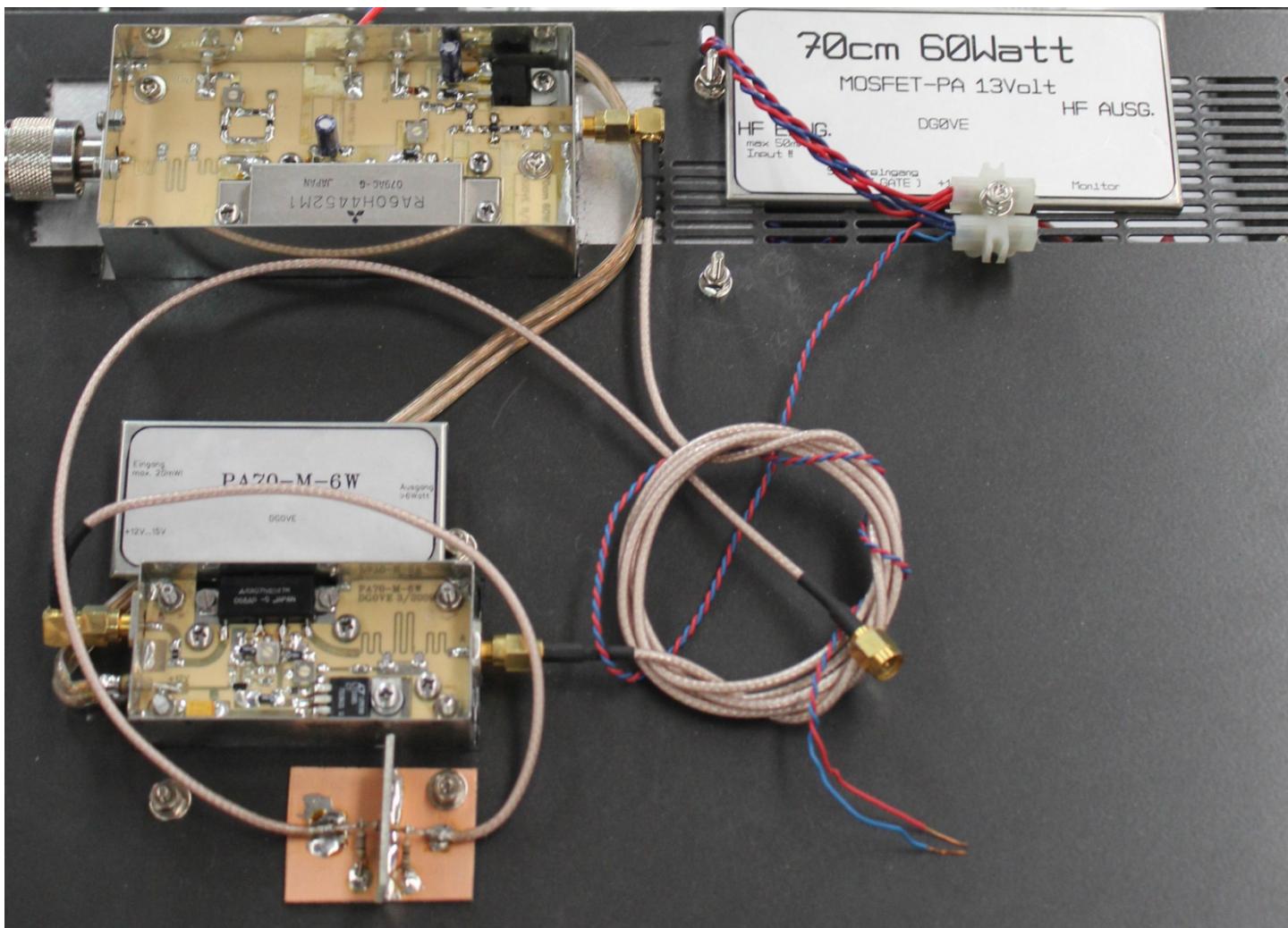
COVID-19 kept numbers down a bit, but as this is the first time I have ever attended a WARC Hamfest, I don't know what their usual numbers are.



I knew at least a dozen hams walking past my table, some I had not seen for years. I sold about half my stuff, the rest to flog off another day.





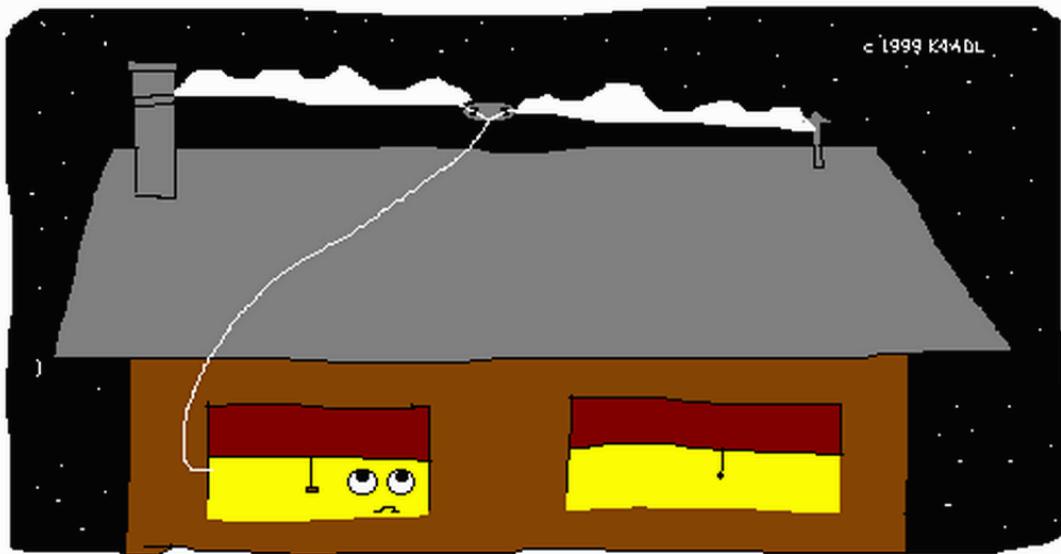


This was the first Hamfest I know of in metropolitan Melbourne since the COVID-19 dramas occurred. Parking is easy, lots of space.

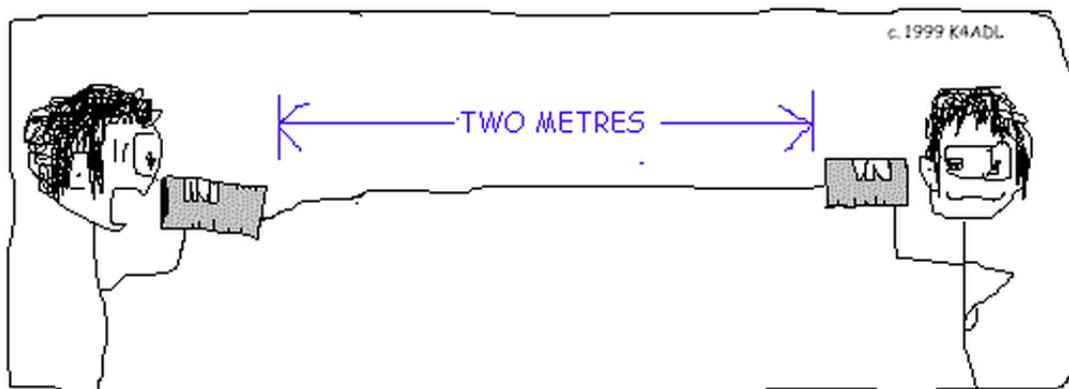
The WARC are Wyndham Amateur Radio Club, the venue was the Italian Social Club, 601 Heaths Road, Werribee. Like most Hamfests after the raffle draw the crowds quickly dispersed.

The 2021 EMDRC Hamfest has been cancelled this year.

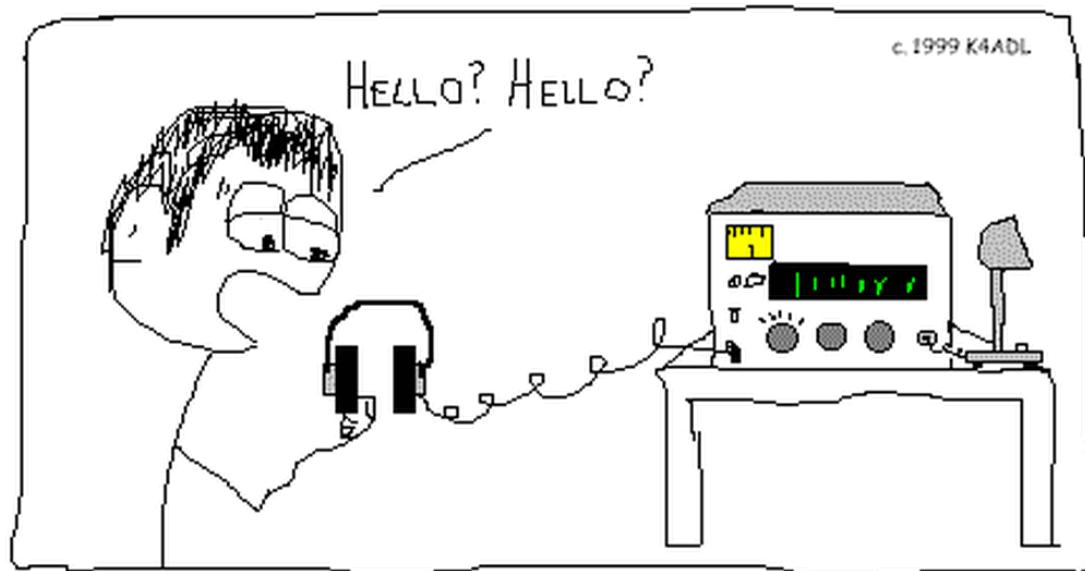
*~Mick VK3CH*



WILBUR ASSUMED HIS MAGNET-WIRE DIPOLE WAS INVISIBLE TO THE HOMEOWNERS' ASSOCIATION, BUT THE FIRST SNOWSTORM OF THE SEASON PROVED HIM WRONG.



THE EARLY YEARS



THE TRANSITION FROM SHORT-WAVE-LISTENER TO HAM OPERATOR WAS SOMEWHAT DIFFICULT FOR EDMUND.

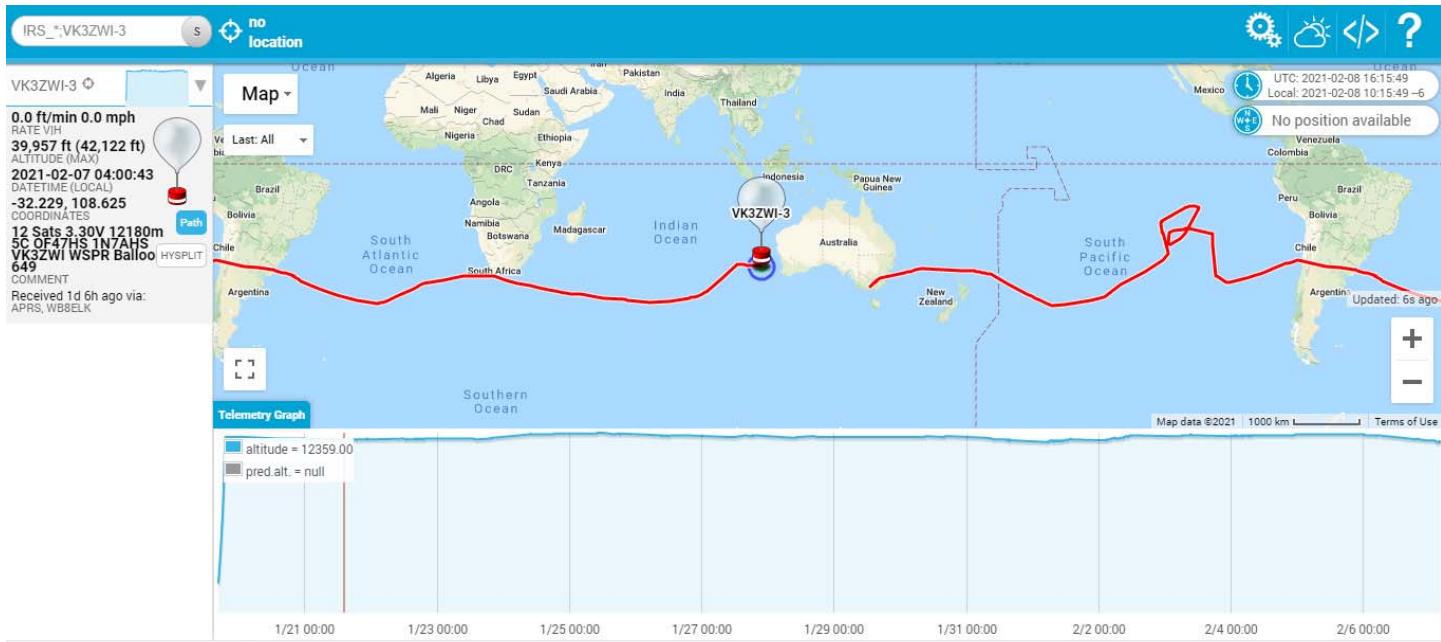
Some artists of the 50's are revising their hits with new lyrics to accommodate baby boomers. Here's a few:

1. Herman's Hermits- Mrs. Brown you've got a lovely walker.
2. The Bee Gees- How can you mend a broken hip.
3. Bobby Darin- Splish Splash I was Having a flash.
4. Ringo Starr- I'll get by with the help from depends.
5. The Commodores- Once, twice, three times to the bathroom.
6. Marvin Gaye- Heard it from the Grape Nuts
7. Leo Sayer- You make me feel like napping.
8. Willie Nelson- On the commode again.
- 9- Procol Harem- A whiter shade of hair.
10. Johnny Nash- I can't see clearly now.
11. Helen Reddy- I am woman hear me snore.
12. Abba- Denture Queen.

Read RASA ~ QTC Magazine  
<https://www.qtcmag.com/>

EMDRC Hamfest 2021 - Cancelled

# VK3ZWI Goes Around the World



Some time ago ARV were approached by teachers from Huntingtower School in suburban Melbourne asking about getting a callsign for medium altitude balloon launches as part of their space science program.

ARV allowed the use of one of our calls VK3ZWI and we have provided some technical advice in preparation for the test flight.

A test flight was launched with a 20g tracker payload three weeks ago.

The tracker used the WSPR network on 10m for communications.

The balloon was launched from Mount Waverley 18 days ago and was finally brought down by a storm just off the coast of WA after getting 98% of the way around the world.

Students are now preparing for a second flight to take off around the 20th March.

~Amateur Radio Victoria

NEW

# Foundation Manual

**Your Entry Into Amateur Radio**

The WIA Foundation Licence Manual Third Edition

http://www.wia.org.au

Ron Bertrand VK2D  
Phil Wait VK2ASD

WIRELESS INSTITUTE OF AUSTRALIA

## The WIA Foundation

**Manual** 3rd edition, is a full color publication consisting of 108 pages of relevant information for those studying, or those who would just like a reference book for Foundation licence activities.

The Manual contains all the relevant information you will need to know to successfully complete a training course to obtain a Foundation licence. It also contains a wealth of information a Foundation licence operator will need. Items like Band Plans, Electrical Safety information, operating procedures such as the Q code, how to contact your local radio club, the WIA and much more.

**Available now!**

[http://www.wia.org.au/members/bookshop/page\\_data.php?id=113](http://www.wia.org.au/members/bookshop/page_data.php?id=113)

# NEVARC Net



**40 Meter Net**

**7 Days a Week  
10am Local time  
(East coast)**

**7.097 MHz LSB**

**Approximately + or – QRM**

**Hosted by Ron VK3AHR  
“Australia Ham Radio 40 Meter Net”**

President, VK2VU, Gary  
Vice President, Tom VK3NXT  
Secretary, VK2FKLR, Kathleen  
Treasurer, Amy



## NEVARC CLUB PROFILE

### History

The North East Victoria Amateur Radio Club (NEVARC) formed in 2014.

As of the 7th August 2014, Incorporated, Registered Incorporation number A0061589C.

NEVARC is an affiliated club of the Wireless Institute of Australia and The Radio Amateur Society of Australia Inc.

### Meetings

Meetings details are on the club website, the Second Sunday of every month, check for latest scheduled details.

Meetings held at the Belvoir Guides Hall, 6 Silva Drive West Wodonga.

Meetings commence with a BBQ (with a donation tin for meat) at 12pm with meeting afterwards.

Members are encouraged to turn up a little earlier for clubroom maintenance.

Call in Via VK3RWO, 146.975, 123 Hz tone.

### VK3ANE NETS

#### HF

7.097 MHz 7 Days a Week - 10am Local time

3.622 MHz Wednesday - 8.30pm Local time

#### VHF

VK3RWO Repeater 146.975 MHz–Monday - 8pm Local time

All nets are hosted by Ron Hanel VK3AHR using the club callsign VK3ANE

### Benefits

To provide the opportunity for Amateur Radio Operators and Short Wave Listeners to enhance their hobby through interaction with other Amateur Radio Operators and Short Wave Listeners. Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of likeminded radio and electronics enthusiasts. Excellent club facilities and environment, ample car parking.

**Website:** [www.nevarc.org.au](http://www.nevarc.org.au)

**Postal:** NEVARC Secretary

PO Box 69

Wahgunyah Vic 3683

**Facebook:** [www.facebook.com/nevicARC/](http://www.facebook.com/nevicARC/)

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All editors' comments and other opinions in submitted articles may not always represent the opinions of the committee or the members of NEVARC, but published in spirit, to promote interest and active discussion on club activities and the promotion of Amateur Radio. Contributions to NEVARC News are always welcome from members.

Email attachments of Word™, Plain Text, Excel™, PDF™ and JPG are all acceptable.

You can post material to the Post Office Box address at the top of this page, or email [magazine@nevarc.org.au](mailto:magazine@nevarc.org.au)

Please include a stamped self-addressed envelope if you require your submission notes returned.

Email attachments not to exceed 5 Mb in file size. If you have more than 5 Mb, then send it split, in several emails to us.

Attachments of (or thought to be) executable code or virulently affected emails will not be opened.

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While we strive to be accurate, no responsibility taken for errors, omissions, or other perceived deficiencies, in respect of information contained in technical or other articles.

Any dates, times and locations given for upcoming events please check with a reliable source closer to the event.

This is particularly true for pre-planned outdoor activities affected by adverse weather etc.

The club website <http://nevarc.org.au> has current information on planned events and scheduled meeting dates.

You can get the WIA News sent to your inbox each week by simply clicking a link and entering your email address found at [www.wia.org.au](http://www.wia.org.au) The links for either text email or MP3 voice files are there as well as Podcasts and Twitter. This WIA service is FREE.